DOCUMENT RESUME

ED 329 305 JC 910 126

AUTHOR Clagett, Craig A.; Huntington, Robin B.
TITLE Assessing the Transfer Function: Issues and Methods.
PUB DATE 9 Nov 90
NOTE 21p.; Paper presented at the Annual Meeting of the Maryland Association for Institutional Research (4th, Frederick, MD, November 9, 1990).
PUB TYPE Speeches/Conference Papers (150)

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS Academic Achievement; *Academic Records; Accountability; College Outcomes Assessment; *College Role; *College Transfer Students; *Community Colleges; Consortia; *Data Collection; Higher Education; *Intercollegiate Cooperation; Models; Organizational Effectiveness; Student Characteristics; Transfer Policy; Two Year Colleges; Universities
IDENTIFIERS *Maryland

ABSTRACT

Information about the rate of student transfer from two- to four-year institutions and transfer students' achievement at the senior institutions can be obtained in several ways. One approach is the utilization of a statewide student tracking system, which permits easy identification of student progress at any level in the system. Systemwide outcomes can also be obtained by accessing existing state data files. Perhaps the most common source of outcomes data is the student survey, which does not depend on inter-institutional or state agency cooperation and which overcomes the geographic limitations of state data systems. Since student surveys are limited to student-reported information and generally have poor response rates, obtaining aggregate data directly from senior institutions is often more desirable. A final method of data collection involves individual-level data exchanges between institutions, which can be of use to both institutions by providing transfer information at the individual record level. A pilot project was undertaken in Maryland involving individual-level data exchanges between a four-year institution and interested community colleges. In exchange for providing community colleges with data on their transfer-in cohort, the four-year colleges received additional individual student data of interest to them. Another study examined transfer rates using different operational definitions of the "transfer student," examining such variables as transfer goal, transfer program, student course load, degree completion, and graduation status. The study concluded that reporting a select set of multiple rates based on different definitions may be fully justified at the institutional and state levels. (JMC)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED329305

ASSESSING THE TRANSFER FUNCTION: ISSUES AND METHODS

presented at the fourth annual meeting of the Maryland Association for Institutional Research

November 9,1990
Hood College
Frederick, Maryland

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

C. A. Clagett

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

X This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

Craig A. Clagett
Prince George's Community College

Robin B. Huntington
University of Maryland

JC910126

ASSESSING THE TRANSFER FUNCTION: ISSUES AND METHODS

Preparing students for transfer to senior institutions for baccalaureate study is a major mission of community colleges. Yet many community colleges are unable to adequately report the number of students who transfer, or how well they do at their transfer school. The lack of reliable information has made it difficult for community colleges to respond to attacks that they are failing in their transfer function. In some cases, reporting systems are inadequate to the task. On a more fundamental level, a lack of consensus on definitional issues clouds the picture. This essay examines several ways of obtaining transfer data, reports on a novel data exchange project, and presents a set of multiple transfer rates as an alternative to the single indicator approach advocated by several national consortia.

The Need for Transfer Information

There are several reasons why a community college needs up-to-date, accurate data on the performance of its transfer students at senior institutions. A fundamental reason is to obtain feedback useful for program improvement at the two-year school. A more immediate need at many institutions is to meet mandated accountability reporting requirements. Articulation issues, such as loss of credit in transfer, can also be served by data provided by transfer information systems. However, it is not only the community college that can benefit from the exchange of transfer

student information. The senior institution stands to learn a lot more about their own transfer students by participating in a data exchange project with community colleges than would ordinarily be possible using its own student information system. Generally, only data deemed directly relevant to a student's transferable academic credentials are maintained on the data system, and much information is not kept in such a way that important research questions, such as "from what kinds of programs and with what intentions do our students come to us," and "how are successes in two-year institutions related to successes in our institution" could be addressed.

Furthermore, it is in the interest of senior institutions to assist in the community colleges' endeavors to learn about their students' success and improve their programs. Better tracking information allows the community colleges to target areas for needed improvement, thus enhancing the educational experience that transfer students bring with them to a senior institution. Everyone benefits. There may even be a "moral" component of the senior institutions' responsibility to provide data to the community colleges which provide them so many FTEs! However, these will likely not be enough to induce anyone in the senior institutions to take on the responsibility (and the workload) for providing these data. The incentives and benefits for the senior institution's involvement in this process will be discussed further in a later section.

Methods of Collecting Transfer Information

Information about the rate of student transfer and student achievement at transfer institutions can be obtained in several ways. Five methods are briefly described in this section.

Statewide Student Tracking Systems. A student tracking system established expressly for the purpose is probably the best approach to evaluating student progress and achievement. Construction and periodic updating of longitudinal tracking files for specified entering cohorts of students enable the analyst to investigate many policy and accountability issues (Adelman, Ewell, and Grable, 1989). Implementation, however, can involve challenging definitional and data processing decisions (Ewell, 1987; Ewell, Parker, and Jones, 1988; Palmer, 1990). Most germane for this essay, state agencies can create systemwide tracking systems from campus reporting systems that permit analysis of student transfer patterns. Such statewide efforts permit the identification of "system outcomes." A student may attend one or more institutions only to graduate from another, counting in attrition figures at the prior institutions where they may have been well served on their way to graduation. The Maryland Higher Education Commission has directed its staff to develop a Student Outcomes and Achievement Report (SOAR) to provide feedback both to high schools on the performance of their graduates at state colleges and universities and to sending and receiving institutions on the performance of

transfer students. The SOAR system is under development as this is being written. Initial specifications call for tracking first-time freshmen for eight years by use of existing fall enrollment reporting systems and a new end-of-year reporting system.

Useful transfer information can be obtained in several ways other than from formal tracking systems set up for that purpose. Four alternatives are described below, which can provide transfer data in lieu of tracking systems or while waiting for sufficient time to pass for meaningful tracking data to be available.

State Computer File Matching. Systemwide outcomes can often be assessed by manipulating existing state data files. For example, one measure of transfer activity can be generated by matching student identification numbers term-to-term using routine enrollment files at the state higher education agency. In Maryland, for example, fall-to-fall movements of students among institutions in the state are tracked by matching student identifiers on official enrollment information system tapes submitted by each campus each fall. This analysis answers the question of where students enrolled at a given campus one year were enrolled the following year, providing a basic measure of retention and transfer. Of course, students enrolled at many Maryland private institutions (since not all participate in the state tape system) and at all institutions outside the state are missed by this analysis, so transfer is understated. Also, students who transferred in a spring or summer term and did not persist in a

fall term are also missed, since the analysis relies on fall enrollment data (Clagett and Huntington, 1989). However, these state files do allow analysis by variables included on the required enrollment tapes, such as race and program of study, and thus have some utility for policy purposes.

Survey Research. Probably the most common source of outcomes data, student surveys do not depend on inter-institutional or state agency cooperation (although collaborative efforts are recommended), and overcome the geographical limitations of state data systems. Students who transfer out of state are not missed, to the extent they are reached and respond, and the researcher is not limited to variables on an existing reporting system. However, most survey designs involve one contact only and thus provide only a snapshot of student outcomes. In addition, response rates are typically poor, especially for surveys of student cohorts entering several years prior to survey administration--often the case when outcomes are the focus of interest. Telephone surveys of nonrespondents can help assess possible response bias, and weighting procedures can be used to mitigate its effects.

Aggregate Data From Senior Institutions. In addition to the likelihood of poor response rates, student survey analyses are limited to student-reported information and data available on the community college database. While these sources can provide considerable possibilities for analysis, assessment of transfer

performance demands credible, specific information on student achievement at the senior institution. Student self-reports are subject to error, especially if detailed quantitative information (for example, term and cumulative hours attempted and earned, grade point averages) is desired. It is preferable to get this sort of hard data directly from the senior institutions. However, they may be reluctant to provide such individual student data due to confidentiality concerns. In addition, there may be political reasons for restricting the scope and depth of data provided (Walleri, 1990). Also, community college needs may not be a high priority for busy university research offices. All a community college may be able to obtain from university sources (especially systems offices as opposed to individual campuses) are a few selected aggregate data such as grouped grade point average frequencies. While certainly better than no feedback, such aggregate displays have limited usefulness for community college program improvement efforts.

Individual-level Data Exchanges Among Institutions. To be most useful for research and program improvement purposes, transfer data are needed at the level of the individual student record. The ability to append detailed transfer performance information at the individual record level to a research file abstracted from the community college student information system (and perhaps including survey data) greatly expands the range of research questions that can be addressed. Transfer outcomes can be investigated for any

subgroup that can be defined by variables on the student information system. The researcher is not restricted to the set of variables selected for inclusion in a systemwide tracking system, and is thus able to respond to many unforeseen research issues. For example, concern was raised at a university campus in Maryland about the preparation of community college students earning a high proportion of transfer credits via telecourses. It is unlikely that telecourse enrollment would be included as a variable in a tracking system, but since course enrollment data are available on the community college database the relationship could be investigated.

In Maryland, attempts to arrange for systemwide provision of transfer information at the individual record level have so far failed. In addition to confidentiality and workload issues, the project has been slowed by the recent reorganization of higher education in the state. The new university system is involved in integrating data from 11 campuses into its own information systems, and the new higher education commission is committed to designing a new statewide tracking system. Under state mandate to provide transfer outcomes in its current accountability reports, several community colleges have actively petitioned selected senior institutions for individual-level transfer data. In the summer of 1990, one university campus agreed to participate in a transfer data exchange with interested community colleges. Partly developed as a pilot project to demonstrate the feasibility and usefulness of a formal transfer information system, this informal effort

coordinated by a special interest group of the Maryland Association for Institutional Research (Ochsner, et al., 1990) will be described in the next section. As will become apparent, an essential element of this approach to obtaining transfer data is exchange: the community colleges agreed to provide data for student cohorts specified by the senior institution in exchange for the data they desired about cohorts of interest to them.

Two-way Exchange of Individual Student Data

On the surface there seems to be little incentive for a four-year institution to voluntarily provide feedback or participate in a data exchange with a two-year institution. After all, the four-year institution already has access to information relevant to its students' prior educational experience. However, there are both incentives and benefits for the four-year institution's participation. Among the more tangible incentives for the senior institutions' participation is the opportunity to actually shape a process that may inevitably become mandated. With increasing demands from the public, as voiced by legislators, for all institutions to demonstrate success in achieving their missions, it is not inconceivable that detailed feedback from four-year to two-year institutions may become required. It is infinitely better to develop and have in place a two-way process at the institutional level, than to wait for bureaucrats in state agencies to come up with their own one-way models which may reflect little concern for

resource constraints, information system realities, or the needs of the participating institutions, two-year and four-year, no matter how well-intentioned.

The benefits to a senior institution for participating in a data exchange stem mainly from access to detailed data in the structured research files that would result. While it is true that a fair amount of information about students' prior education already exists in a senior institution's student information system, such data are seldom in a format that lends itself easily to access or manipulation for research purposes. Furthermore, not all relevant data are maintained on the database, and it is not always clear which data are connected to which prior institutional experiences. For example, a senior institution may be able to tell that a student had attended Community Colleges X and Y and had transferred in N number of credits, but might not be able to tell how many credits were actually earned at Community College X versus Community College Y, whether a degree was received, what sort of program the student had been in, or how long he or she attended Community College Y before transferring.

Thus, for most senior institutions, the research files resulting from a data exchange would enable them to learn a great deal more about their transfer students than would their own student information systems. For example, they would be able to analyze the relationship between grade point average (GPA) at two-year institutions and success at four-year institutions. They would be able to differentiate between career-track and transfer-

track students to see if this affected their success at the four-year institution. Students' major programs at the four-year institution could be related to their programs at the two-year institutions. An analysis could be performed on the number of two-year credit hours earned versus the number of credits transferred to four-year institutions. The list is limited only by the interest of the four-year institutions in learning about their transfer students.

Because the group of interest for the two-year institution is its freshmen cohort and the group of interest for the four-year institution is its transfer-in cohort, the pilot project was truly an exchange of data. What first seemed to be an obstacle, trying to decide which institution's interest outweighed the other's, became an opportunity. Both sides would create files, match records, and append data that would result in two data files. The four-year institution created a data file of their target transfer-in cohort and gave it to the two-year institutions for them to append data about these students. The two-year institutions created data files of their target freshmen cohort and gave it to the four-year institution for it to append data about these students, if they had enrolled at the senior institution. Both sides provided and requested data such as academic program, credit hours attempted and earned, GPA, academic standing, period of enrollment, and degree information.

The actual data exchange process revealed many obstacles that could not have been foreseen at the design stage, emphasizing the

importance of institutional-level involvement and testing in the development of a data exchange model. For example, both the two- and four-year institutions requested that "census date" be part of the data appended during the exchange, but even something as simple and universal as "census date" was not so clearcut in its actual use. Should the census date for the transfer-in cohort for the four-year institution be the transfer-in cohort year or the creation date of the exchange file? Another problem arose with the discovery that the two-year institutions were using fiscal years and the four-year institution was using calendar years. Also, how should students who transferred among several institutions, both two- and four-year, be handled? Problems such as these, while mundane and generally resolvable, reflect the level of detail work that must go into such a project. The reward, though, is a process and a product that is based on the needs and resources of all of the participating institutions.

Results from the early stages of this pilot study included the finding that students who completed A.A. degrees at the community college were more likely to have earned grade point averages above 3.0 at the university than those who transferred without completing the A.A degree. Interestingly, though, students who had been in a "transfer" as opposed to a "career" track at the community college had slightly lower GPA's at the senior institution. Students who had not chosen a major before transferring to the senior institution had the highest GPAs of the three groups! Receipt of the A.A. degree or knowledge of the community college program

followed were not items that were recorded on the four-year institution's database, and so neither the four- nor the two-year institutions would have learned these findings otherwise.

The pilot data exchange project provided detailed information to help participating institutions assess the transfer function. But a more mundane and seemingly simpler question has proven problematic for community colleges nationwide. What percentage of community college students transfer?

Defining Transfer Rates

Answering the question, "What percentage of community college students transfer?" is not as simple a request as it might appear. Deciding which community college students are to be included in the calculation is fundamental; with the diversity of students attending community colleges, half of whom may have no intention of transferring, deciding who to count is the first question that needs to be answered.

As a starting point, it seems essential to identify a minimum number of credits a student must complete at the community college to be counted in the denominator of the transfer rate calculation. How many hours should a student earn at the community college before the institution is held accountable for his or her subsequent achievement? The National Effective Transfer Consortium (NETC) argues for a minimum of six units (Fryer, et al., 1990);

the Center for the Study of Community Colleges/Ford Foundation Transfer Assembly advocates a minimum of 12 credits (Banks, 1990). In Maryland, most senior institutions consider only those transferring at least 12 hours from a community college as transfer students.

A second fundamental question to be addressed is study period: how many years do we follow the students? Community college students are predominantly part-time and progress through their college careers slowly, often interrupted by periods of nonattendance. The NETC addresses this issue by basing their transfer rate on the "exiting cohort" of students--those who were enrolled for credit in one term but did not return the next term. These "leavers" constitute the denominator for the NETC calculation, which thus reflects an immediate transfer rate of nonpersisting community college students (Fryer, et al., 1990). The CSCC/FF Transfer Assembly asks how many students have transferred within four years of their community college entry. A four-year study period was adopted for several transfer studies conducted in Maryland, including analyses of state agency files and student follow-up surveys.

The findings reported in this section are based on a spring 1988 survey of all students entering Maryland community colleges in fall 1984. A total of 3,914 students responded to the survey, which was designed by the Maryland Community College Research Group and coordinated by the Maryland State Board for Community Colleges. The survey achieved a 23 percent response rate. To mitigate

possible response bias, a weighting procedure based on student gender, age, race, cumulative hours earned, cumulative grade point average, and full-/part-time basis, was employed prior to analysis. The base transfer rate for all respondents, regardless of the number of hours completed at their community college, was 28 percent. The rate for those completing at least 12 hours at the community college was 36 percent. All further rates in this essay are based on the group completing at least 12 hours.

Given the wide variety of student reasons for attending community colleges, and their varying patterns of attendance, it is instructive to look at several subgroups of students, defined by the following characteristics:

Transfer goal. To be most meaningful, student outcomes assessment must take student goals into account (Clagett, 1989). Maryland's 17 community colleges now routinely collect student goal information at each registration; a goal question was also included in the 1984 entrant survey. Critics of using student intentions in transfer rate calculations point out that student goals are unstable (see Palmer, in Center for the Study of Community Colleges, 1990, p.4). Indeed, one of the benefits of community college attendance for many students is goal clarification. Nevertheless, it is reasonable to ask what percentage of students who had a goal of transferring succeeded in doing so. For the 1984 entrants to Maryland community colleges, this definition produced a transfer rate of 63 percent.

Transfer program. Degree programs at Maryland community colleges are designed for either transfer or occupational preparation. While the distinction does not preclude students in occupational programs from transferring, the logic of course requirements and sequencing does reflect the primary purpose of each curriculum. It is reasonable to ask what percentage of students enrolled in transfer programs succeeded in transferring. Fifty percent of the 1984 entrants who enrolled in transfer programs and completed at least 12 hours at their community college had transferred to a senior institution within four years.

Student courseload. Because outcome studies must be time bound, a student's full or part-time attendance will have an impact on attainment rates. Full-time attendance may also indicate greater motivation, commitment, and seriousness of purpose. It is reasonable to ask what percentage of students enrolled full-time succeeded in transferring. The transfer rate among the Maryland entrants who attended primarily full-time was 44 percent.

Degree completion. While the majority of students who transfer have not completed their community college program, it is nevertheless appropriate to examine transfer outcomes for community college graduates, especially those from transfer programs. It is the graduates, after all, who have completed the entire curriculum and have presumably benefitted the most from the community college experience. It is reasonable to ask what percentage of students

graduating from the community college succeeded in transferring. The transfer rate for Maryland community college graduates was 52 percent. The rate for those graduating from transfer programs was 71 percent.

In addition to calculating separate transfer rates for student subgroups defined by their reason for attending, program type, courseload, and community college degree attainment, it is reasonable to calculate rates for various combinations of these attributes. For example, what was the transfer rate for full-time students who had a transfer goal and pursued a transfer program? While this may seem an overly-qualified definition, is it really? It can be argued that looking at those who intended to transfer, who pursued an appropriate curriculum, and who were committed to full-time study is a legitimate option. The transfer rate for this group was 72 percent. Perhaps the most restrictive definition examines those who had a transfer goal and graduated from a transfer program. The transfer rate for this group of Maryland community college graduates was 82 percent.

Conclusions

Like most human behavior, the transfer phenomenon is more complex than the models we usually use to describe it. The traditional assumption of a linear process starting at the community college and proceeding directly to the senior institution for completion of the bachelor's degree is simply not reflective of

the diverse patterns of student attendance. Fall-to-fall analysis of state enrollment files suggests that for every five students moving from the community college to a four-year school, two students transfer from four-year schools to the community college. Students may move back and forth among institutions, sometimes attending two or more concurrently. Research designs that capture more of these diverse patterns of attendance are needed.

Community colleges are under mandates from accrediting agencies and governing boards to document student achievement. Providing credible and useful data on the performance of community college transfers at senior institutions is an essential part of the institutional accountability process. This essay has reviewed several ways of obtaining this information, including the direct swap of student data among institutions as a way around the intransigence of bureaucrats and the delays in waiting for results from newly-implemented tracking systems.

Finally, determining community college transfer rates has become a national issue. Reaching consensus on an appropriate formula for calculating such rates has not been easy, and obtaining the requisite data even more difficult. While the argument for agreeing on a single, simple formula for national comparative purposes is persuasive, reporting a select set of multiple rates based on different definitions may be fully justified at the institutional and state levels.

References

Adelman, S. I., Ewell, P. T. & Grable, J. R. (1989). LONESTAR: Texas's voluntary tracking and developmental education evaluation system. In T. H. Bers (ed.), Using Student Tracking Systems Effectively. New Directions for Community Colleges, No. 66. San Francisco: Jossey-Bass.

Banks, D. L. (1990). Why a consistent definition of transfer? An ERIC review. Community College Review, 18(2), 47-53.

Center for the Study of Community Colleges (1990). The 1990 transfer assembly: A report. Los Angeles: ERIC Clearinghouse for Junior Colleges.

Clagett, C. A. (1989). Student goal analysis for accountability and marketing. Community College Review, 16(4), 38-41.

Clagett, C. A. & Huntington, R. B. (1989). Community college transfers to Maryland four-year institutions. Office of Institutional Research and Analysis Report RB90-11. Largo, Maryland: Prince George's Community College.

de los Santos, A. G. & Wright, I. (1990). Maricopa's swirling students: Earning one-third of Arizona State's bachelor's degrees. Community, Technical, and Junior College Journal, 60(6), 32-34.

Ewell, P. T. (1987). Principles of longitudinal enrollment analysis: Conducting retention and student flow studies. In Muffo, J. A. & McLaughlin, G. W. (eds.), A Primer on Institutional Research. Tallahassee, FL: Association for Institutional Research.

Ewell, P. T., Parker, R. & Jones, D. P. (1988). Establishing a Longitudinal Student Tracking System. Boulder, CO: National Center for Higher Education Management Systems.

Fryer, T. W., Berman, P., Weiler, D. & Clawson, C. (1990). NETC's new definition of transfer. Community, Technical, and Junior College Journal, 60(6), 30-31.

Fryer, T. W. & Turner, C. S. (1990). The transfer status of "non-transfer" students. Community/Junior College Quarterly of Research and Practice, 14(3), 213-226.

Ochsner, N., Clagett, C., Farahani, G., Huntington, R. & McConochie, D. (1990). Transfer information system pilot project: Two-year/four-year data exchange. Presentation at the Fourth Annual Conference of the Maryland Association for Institutional Research.

Palmer, J. (1990). Accountability through student tracking: A review of the literature. Washington, D.C.: American Association of Community and Junior Colleges.

Riegle, R. M. & Williams, D. F. (1990). Students on the move: An articulation transfer information feedback model. Community/Junior College Quarterly of Research and Practice, 14(2), 101-114.

Walleri, R. D. (1990). Tracking and follow-up for community college students: Institutional and statewide initiatives. Community/Junior College Quarterly of Research and Practice, 14(1), 21-34.

Washington State Board for Community College Education (1989). A study of the role of community colleges in the achievement of the bachelor's degree in Washington state. Olympia, Washington: State Board for Community College Education.

ERIC Clearinghouse for Junior Colleges

APR 12,1991